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Figure 3 is a graph that illustrates one embodiment of a spectrum allocation for upstream data channels for a cable modem termination system according to the teachings of the present invention.

Figure 4 is a block diagram of one embodiment of a system including a cable modem termination system that supports multiple downstream channels according to the teachings of the present invention.--

Please delete the second paragraph on Page 6, lines 12-26, and replace it with:

a2
FIG. 3

--Figures 1B₁ and 1B₂ are block diagrams of one embodiment of a circuit, indicated generally at 100, for a cable modem termination system that supports multiple downstream channels according to the teachings of the present invention. Circuit 100 advantageously increases the port density without increasing the size of the card or chassis compared to existing systems by including a plurality of media access control (MAC) circuits 106-1, . . . , 106-N on the same card or chassis. Each of the MAC circuits 106-1, . . . , 106-N supports a separate downstream channel and a separate plurality of upstream channels. In other words, each MAC circuit 106-1, . . . , 106-N supports a separate MAC domain. The added channels allow circuit 100 to provide a higher number of homes passed compared to existing systems. Further, all of MAC circuits 106-1, . . . , 106-N share the same downstream port 114 and the same upstream ports 116-1, . . . , 116-K. Thus, circuit 100 can be used in the same physical space as existing cards or chassis, thereby increasing the port density without requiring a complete modification of the physical structure of existing systems.--

Please delete the second full paragraph on Page 9, lines 14-25 and replace it with:

a3

--Figure 4 is a block diagram of one embodiment of a system, indicated generally at 400, including a multi-channel cable modem termination system 404 that supports multiple downstream channels according to the teachings of the present invention. System 400 includes head end 402. Among other components, head end 402 includes a multi-channel CMTS 404 that supports multiple downstream channels and multiple

upstream channels on a single card or chassis. Advantageously, CMTS 404 has a physical configuration that uses the same number of upstream and downstream ports as in existing cards and chassis, but provides more downstream and upstream channels than existing cards and chassis. Thus, CMTS 404 allows a larger number of subscribers to be supported than existing CMTS cards and chassis. In one embodiment, CMTS 404 is constructed as described above with respect to Figures 1A, 1B₁ and 1B₂, 2, and/or 3.--

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cont.

[illegible]